

Jamie M. Jasinski

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Astrophysics & Space Sciences Section (326)
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EDUCATION	Ph.D. Space Plasma Physics UCL (University College London), UK Mullard Space Science Laboratory Advisors: Prof. Andrew Coates, Dr. Chris Arridge, & Prof. Geraint Jones Thesis title: <i>Cassini Observations of Saturn's Magnetospheric Cusp</i>	2015
	MSci Astrophysics (4-year accelerated undergraduate Masters in Science) UCL (University College London), UK Dept. of Physics and Astronomy	2011
EMPLOYMENT	Research Scientist Level II NASA Jet Propulsion Laboratory, CA, USA Astrophysics & Space Sciences Section	2020 -
	NASA Postdoctoral Program Fellowship NASA Jet Propulsion Laboratory, CA, USA Astrophysics & Space Sciences Section Advisor: Dr. Neil Murphy	2017 - 2020
	Postdoctoral Research Fellow University of Michigan, MI, USA Dept. of Climate and Space Sciences and Engineering Advisor: Prof. James A. Slavin	2015 - 2017
AWARDS	2020 NASA JPL Team Award	
	2018 NASA Group Achievement Award, Cassini Plasma Spectrometer Team	
	2018 The Sir Arthur Clarke Award, UK Cassini-Huygens Team	
	2018 NASA JPL Bonus Award, "In recognition for outstanding support of Science Red Team pilot studies, providing a new capability to strengthen future mission and instrument proposals"	
	2017 NASA Postdoctoral Program Fellowship	

GRANTS
AWARDED

Total Awarded: ~\$1.8M

Current

- 2021 - 2023 Science-PI
NASA ROSES Exoplanet Research Program 2020
Space weather impacts on habitable exoplanets
\$515,337
- 2020 - 2021 Science-PI
JPL Strategic R&TD FY'21
Understanding Ice Giant Magnetospheres
\$165,000 (renewable every year up to \$495k).
- 2019 - 2022 Science-PI
NASA ROSES Discovery Data Analysis Program 2018
Sodium ions in the solar wind, magnetosheath and magnetosphere of Mercury
\$481,220
- 2019 - 2022 Science-PI
NASA ROSES Cassini Data Analysis Program 2018
Saturn's high-latitude magnetosphere: dynamics, composition and its coupling to the Solar Wind
\$441,731

Past

- 2017 - 2019 PI
NASA Postdoctoral Program Fellowship
2-years fully funded ~\$205,000

Pending

- 2021 - 2023 Co-I
NASA ROSES Planetary Data Archiving, Restoration and Tools
2020
Empirical model of low-energy plasma in the Saturnian magnetosphere
\$420,312

INVITED
TALKS

- 2021 *Saturn's magnetospheric cusp and high-latitude magnetosphere*
IRAP, France
Presentation
- 2020 *A transient enhancement of Mercury's exosphere at extremely high altitudes inferred from pickup ions*
Hermean Environment Working Group
Presentation

- 2020 Invite-only workshop on *Surface Bounded Exospheres and Interactions in the inner Solar System*
International Space Science Institute, Switzerland
Presentation & book chapters.
- 2019 *Mercury's magnetosphere and exosphere: recent results from MESSENGER data*
UCLA - EPSS, USA
Seminar
- 2018 *Mercury's magnetosphere: recent results from MESSENGER*
UCL, UK
Seminar
- 2014 *Solar wind interaction with the Outer Planets*
Lancaster University, UK
Seminar

PROFESSIONAL SERVICE **Journal Reviewer:** Nature Communications, Journal of Geophysical Research (JGR – Space Physics), Icarus, Geophysical Research Letters (GRL) and Annales Geophysicae.

Proposal Reviewer: NASA NSPIRES Solicitations (external and internal voting panelist).

Coordinated and directed a weekly Space Physics journal club at both the University of Michigan and NASA JPL.

Local Organizing Committee for The 6th Alfven Conference (2014).

Member of the American Geophysical Union (AGU).

TEACHING

2017 University of Michigan Mentorship Program

2014 MSSL Summer School, UK

Gave lectures, designed workshops and developed the aims of the Summer School.

Taught a *Cassini Plasma Spectrometer Data Analysis* workshop. Voted as “Most Engaging” workshop by students.

SELECTED TALKS

2020 AGU Fall Meeting, San Francisco, CA, USA (Oral).

2019 AGU Fall Meeting, San Francisco, CA, USA (Poster).

2019 Magnetospheres of the Outer Planets (MOP), Japan (Poster).

2018 AGU Fall Meeting, Washington D.C, USA (Poster)

2018 Magnetospheres of the Outer Planets (MOP), Boulder, CO, USA (2 Posters)

2018 ESLAB 52 Conference, ESTEC Noordwijk, Netherlands (Poster).

- 2018 Mercury 2018 Meeting, Columbia, MA, USA (Oral)
- 2017 Magnetospheres of the Outer Planets (MOP), Uppsala, Sweden (Oral).
- 2016 AGU Fall Meeting, San Francisco, USA (Poster).
- 2016 Outer Planet's Assessment Group Meeting, Arizona, USA (Poster).
- 2016 Cassini MAPS Meeting, Ann Arbor, MI, USA (Oral).
- 2016 EGU Meeting, Vienna, Austria (Poster).
- 2014 AGU Fall Meeting, San Francisco, USA (Oral).
- 2014 The 6th Alfven Conference, London, UK (Oral).
- 2014 Cassini Plasma Spectrometer (CAPS) Team Meeting, MSSL, UK (Oral).
- 2013 Magnetospheres of the Outer Planets (MOP), Athens, Greece (Oral & Poster).
- 2013 Cassini Magnetospheric and Particle Science (MAPS) Workshop, SwRI, San Antonio, USA (Oral).
- 2012 Cassini Plasma Spectrometer (CAPS) Team Meeting, MSSL, UK (Oral).

PUBLIC
OUTREACH

- 2017 The London Oratory School, "Exploring Saturn" Seminar (15-18 year olds), UK.
- 2013 Royal Society Summer Science Exhibition, "Ice Worlds" Exhibitor (all ages), UK.
- 2012 Westminster Under School, rocket building workshop and overview of the solar system (10-year olds), UK.

PUBLICATIONS

Peer-Reviewed Journals:

18 published in 5 journals (9 first-authored)
3 under review (1 first-authored)

2021

[18]. **Jasinski, J. M.**, et al., (2021) *Flux Transfer Events at a reconnection-suppressed magnetopause: Cassini observations at Saturn*, **J. Geophys. Res. Space Phys.**, 126, e2020JA028786.
doi.org/10.1029/2020JA028786

2020

[17]. **Jasinski, J. M.**, et al., (2020) *A transient enhancement of Mercury's exosphere at extremely high altitudes inferred from pickup ions*, **Nature Communications**, doi:10.1038/s41467-020-18220-2.

[16]. **Jasinski, J. M.**, et al., (2020) *The importance of local interstellar conditions on the galactic cosmic ray spectrum at Exoplanets*, **Ap. J. Lett.**, 899, L18, doi.org/10.3847/2041-8213/aba7c8

[15]. Nordheim T., et al., including **J. M. Jasinski**, (2020), *Detection of negative pickup ions at Saturn's moon Dione*, **Geophys. Res. Lett.**, 47, e2020GL087543, doi.org/10.1029/2020GL087543

[14]. Sun et al., including **J. M. Jasinski**, (2020), *MESSENGER observations of Mercury's nightside magnetosphere under extreme solar wind conditions: reconnection-generated structures and steady convection*, **J. Geophys. Res. Space Phys.**, 125, e2019JA027490, <https://doi.org/10.1029/2019JA027490>

2019

[13]. **Jasinski J. M.**, et al., (2019), *Saturn's open-closed field line boundary: a Cassini electron survey at Saturn's magnetosphere*, **J. Geophys. Res. Space Phys.**, 124. <https://doi.org/10.1029/2019JA027090>

[12]. Nordheim T. A, **J. M. Jasinski** & K. Hand, (2019), *Galactic cosmic ray bombardment of Europa's surface*, **Ap. J. Letters**, 881, L29, <https://doi.org/10.3847/2041-8213/ab3661>

[11]. Slavin et al., including **J. M. Jasinski**, (2019), *Mercury's magnetospheric Disappearing dayside events as observed by MESSENGER*, **J. Geophys. Res. Space Phys.**, 124. <https://doi.org/10.1029/2019JA026892>

2017

[10]. **Jasinski J. M.**, J. A. Slavin, J. M. Raines and G. DiBraccio (2017), *Mercury's solar wind interaction as characterized by magnetospheric plasma mantle observations with MESSENGER*, **J. Geophys. Res. Space Phys.**, 122, 12153–12169, doi:10.1002/2017JA024594

[9]. **Jasinski J.M.**, et al., (2017), *Diamagnetic depression observations at Saturn's magnetospheric cusp*, **J. Geophys. Res. Space Phys.**, 122, 6283–6303, doi:10.1002/2016JA023738.

[8]. Smith, A. W., et al., including **J. M. Jasinski** (2017), *Automated force free flux rope identification*, **J. Geophys. Res. Space Phys.**, 122, 780–791, doi:10.1002/2016JA022994

2016

[7]. **Jasinski J. M.**, et al., (2016) *Cassini Plasma Observations of Saturn's Magnetospheric Cusp*, **J. Geophys. Res. Space Phys.**, 121, 12047-12067, doi:10.1002/2016JA023310.

[6]. **Jasinski, J. M.**, et al., (2016) *Flux transfer event observation at Saturn's dayside magnetopause by the Cassini spacecraft*, **Geophys. Res.**

Lett., 43, 6713–6723, doi:10.1002/2016GL069260.

[5]. Arridge, C. S., **J. M. Jasinski**, et al. (2016), *Cassini observations of Saturn's southern polar cusp*, **J. Geophys. Res. Space Phys.**, 121, 3006–3030, doi:10.1002/2015JA021957.

[4]. Dunn, W. R., et al., including **J. M. Jasinski** (2016), *The impact of an ICME on the Jovian X-ray aurora*, **J. Geophys. Res. Space Phys.**, 121, 2274–2307, doi:10.1002/2015JA021888.

2014

[3]. **Jasinski, J. M.**, et al., (2014), *Cusp observation at Saturn's high latitude magnetosphere by the Cassini spacecraft*, **Geophys. Res. Lett.**, 41, 1382–1388. doi: 10.1002/2014GL059319

2013

[2]. Radioti, A., et al., including **J. M. Jasinski** (2013), *Auroral signatures of multiple magnetopause reconnection at Saturn*, **Geophys. Res. Lett.**, 40, 4498–4502, doi:10.1002/grl.50889.

2012

[1]. Kipping, D. M., Dunn, W. R., **Jasinski, J. M.** and Manthri, V. P. (2012), *A novel method to photometrically constrain orbital eccentricities: Multibody Asterodensity Profiling*, **Monthly Notices of the Royal Astro. Soc.**, 421: 1166–1188. doi:10.1111/j.1365-2966.2011.20376.x

Under Revision

[19]. **Jasinski, J. M.**, et al., *Photoionization of Mercury's Sodium Exosphere: a seasonal loss process observed by MESSENGER*, submitted to **Geophys. Res. Lett.**

[20]. Janches, D., et al., including **J. M. Jasinski**, *Meteoroids as one of the sources for exosphere formation on airless bodies in the inner solar system*, submitted to **Space Science Reviews**.

[21]. Leblanc, F., et al., including **J. M. Jasinski**, *Comparative Na and K Mercury and Moon exospheres*, submitted to **Space Science Reviews**.